

PRELIMINARY AMENDMENT CLAIMS

~~CLAIMS~~ What is claimed is:

1. A parking brake comprising a drum containing first and second brake shoe portions, a handbrake lever pivoted adjacent one end on one of the brake shoe portions and a strut extending between a first abutment on the handbrake lever and a second abutment on the other of the brake shoe portions so that pivoting of the handbrake lever relative to said one brake shoe portion moves the strut which in turn moves the other brake shoe portion away from said one brake shoe portion to bring the shoe portions into contact with the drum thus applying the parking brake, one of the abutments comprising a biased wedging means which acts on the strut to take up all play in the thrust path between the handbrake lever and the other brake shoe portion via the strut, means being provided for disabling the wedging means from operating except when initial manufacturing or assembly clearances are being taken up in the strut or when a subsequent manual adjustment of shoe clearance is being made.
2. (original) A brake according to claim 1 in which the first and second brake shoe portions are provided by separate brake shoes.
3. (original) A brake according to claim 1 in which the first and second brake shoe portions are provided by opposite end portions of a single generally U-shaped brake shoe.
4. (currently amended) A brake according to claim 1 ~~any one of claims 1 to 3~~ in which the biased wedging means is a sliding wedge.

5. (original) A brake according to claim 4 in which the wedge slides along a plate secured to the web of the other brake shoe portion, a further edge of the wedge sliding along a further abutment surface on the strut.
6. (original) A brake according to claim 5 in which the further abutment surface on the strut comprises the root of a forked end portion of the strut, the forked end having two prongs which extend on opposite sides of a web of the other brake shoe portion.
7. (currently amended) A brake shoe according to claim 1 ~~any one of claims 1 to 3~~ in which the biased wedging means comprises a cam rotationally biased against one end of the strut by a spring means.
8. (currently amended) A brake according to claim 1 ~~any one of claims 1 to 7~~ in which the means for disabling the wedging means comprises a releasable clamping means which prevents movement of the biased wedge means relative to the co-operating abutment.
9. (original) A brake according to claim 8 in which the clamping means comprises a clamping member which is drawn down onto the biased wedge or cam by a screw or bolt to clamp the wedge or cam to the web of the other brake shoe portion to prevent adjustment of the clearances.
10. (currently amended) A brake according to ~~any one of claims 4 to 9 when dependent on~~ claim 2 in which the ends of the brake shoes remote from the strut pivot on a brake shoe clearance adjustment device positioned between the ends of the shoes and in which the biased wedging means is a sliding wedge.
11. (original) A brake according to claim 10 in which the adjustment device operates automatically when a given amount of movement of the hand brake

lever occurs before the brake is applied.

12. (currently amended) A brake according to ~~any one of claims 1 to 11~~ claim 1 in which the brake is of the drum in disc type.
13. (currently amended) A parking brake system comprising an electrical actuator, a parking brake according to ~~any one of claims 1 to 12~~, claim 1 and linkage means connecting the actuator to the parking brake.
14. (original) A parking brake system comprising a drum-type parking brake, an electrical parking brake actuator for applying the parking brake, an actuating mechanism connecting the actuator to the parking brake, and an automatic parking brake clearance adjustment device actuated when the movement of the actuating mechanism required to apply the parking brake exceeds a predetermined distance.
15. (original) A parking brake system according to claim 14 in which the parking brake is of the drum in disc type.
16. (currently amended) A parking brake system according to ~~any one of claims 13 to 15~~ claim 13 having first and second brake shoe portions and in which the actuating mechanism comprises a handbrake lever pivoted adjacent one end of the shoe portions, and a strut extending between a first abutment on the handbrake lever and a second abutment on the other brake shoe portion so that pivoting of the handbrake lever relative to said one brake shoe portion moves the strut which in turn moves the other brake shoe portion away from said one brake shoe portion to bring the shoe portions into contact with a brake drum and thus apply the parking brake, the automatic adjustment device being actuated by pivoting movement of the handbrake lever relative to said one shoe portion beyond a predetermined distance to increase the effective length of the adjustment device thus compensating for wear of the

shoe portions.

17. (presently amended) A parking brake system according to ~~any one of claims 13 to 15~~ claim 13 having first and second brake shoe portions and in which the actuating mechanism comprises a first lever having a first contact zone adapted to engage a portion of the first brake shoe portion, said first lever being pivotally connected with a second lever, the second lever having a second contact zone adapted to engage a portion of the second brake shoe portion, pivoting of the first lever relative to the second lever being arranged to increase the effective length of the mechanism between the contact zones thus moving the associated brake shoe portions apart to engage the parking brake, the automatic adjustment device being actuated by movement of one of the levers beyond a predetermined distance to increase the effective length of the adjustment device thus compensating for wear of the shoe portions
18. (currently amended) A parking brake system according to claim 16 ~~or 17~~ in which the first and second brake shoe portions are provided by separate brake shoes.
19. (original) A parking brake system according to claim 18 in which the automatic adjustment device is provided between the ends of the shoe portions remote from the strut or between the ends of the shoe portions remote from the first and second levers.
20. (presently amended) A parking brake system according to claim 16 ~~or 17~~ in which the first and second brake shoe portions are provided by opposite end portions of a single generally U-shaped brake shoe.
21. (original) A parking brake system according to claim 20 in which the automatic adjustment device is also provided between the opposite end

portions of the single shoe.

22. (presently amended) A parking brake system according to ~~any one of claims 13 to 21~~ claim 13 in which the automatic adjustment device includes a screw-threaded member which is rotated to increase its effective length by a pawl and toothed ratchet wheel operated in response to movement of the actuating mechanism.
23. (original) A parking brake system according to claim 22 in which the movement of the actuating mechanism to apply the brake causes the pawl to move up and down a ratchet wheel tooth with which it is currently engaged so that when the movement of the actuating mechanism exceeds a predetermined distance, indicating a predetermined amount of wear of the shoe or shoes, the movement of the pawl is sufficient to engage the next tooth on the ratchet wheel so that during the next release of the brake the pawl rotates the ratchet wheel under the action of a bias force to increase the effective length of the adjustment device and hence move the shoe portions further apart.
24. (original) A parking brake system according to claim 22 in which the movement of the actuating mechanism causes the pawl to push on the root of a ratchet wheel tooth to tend to rotate the ratchet wheel to take up wear of the shoe or shoes, the pawl being retracted relative to the ratchet wheel on each brake release, and the arrangement being such that when retraction of the pawl exceeds a predetermined amount, indicating the presence of a predetermined amount of wear of the shoe or shoes, the pawl snaps into the root of the next ratchet wheel tooth and the adjustment process is repeated.
25. (presently amended) A parking brake system according to claim 23 ~~or 24~~ in which the pawl is mounted on a pivotally mounted adjuster plate, the adjuster plate being pivoted to move the pawl in response to contact of the adjuster

plate by the handbrake lever.

26. (presently amended) A parking brake system according to claim 23 ~~or 24 when dependent on claim 16~~ having first and second brake shoe portions and in which the actuating mechanism comprises a handbrake lever pivoted adjacent one end of the shoe portions, and a strut extending between a first abutment on the handbrake lever and a second abutment on the other brake shoe portion so that pivoting of the handbrake lever relative to said one brake shoe portion moves the strut which in turn moves the other brake shoe portion away from said one brake shoe portion to bring the shoe portions into contact with a brake drum and thus apply the parking brake, the automatic adjustment device being actuated by pivoting movement of the handbrake lever relative to said one shoe portion beyond a predetermined distance to increase the effective length of the adjustment device thus compensating for wear of the shoe portions, and in which the pawl is mounted on a pivotally mounted adjuster plate, the adjuster plate being pivoted to move the pawl via a linkage connected with the first or second lever.
27. (presently amended) A parking brake system according to ~~any one of claims 22 to 25~~ claim 22 in which the pawl is of a bi-metallic construction so that should the temperature of the brake become excessively high (which might lead to an over adjustment of the brake) the pawl is deflected out of engagement with the ratchet wheel tooth to prevent adjustment of the effective length of the adjustment device.
28. (original) A parking brake system according to claim 16 in which a biased wedging means acts between the strut and one of the first or second abutments to take up play in the thrust path between the handbrake lever and the other brake shoe via the strut.

29. (original)        A parking brake system according to claim 28 in which a disabling means is provided for disabling the wedging means from operation except when initial manufacturing or assembly clearances are being taken up in the strut or when a subsequent manual adjustment of the shoe clearance is being made.
31. (canceled)
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